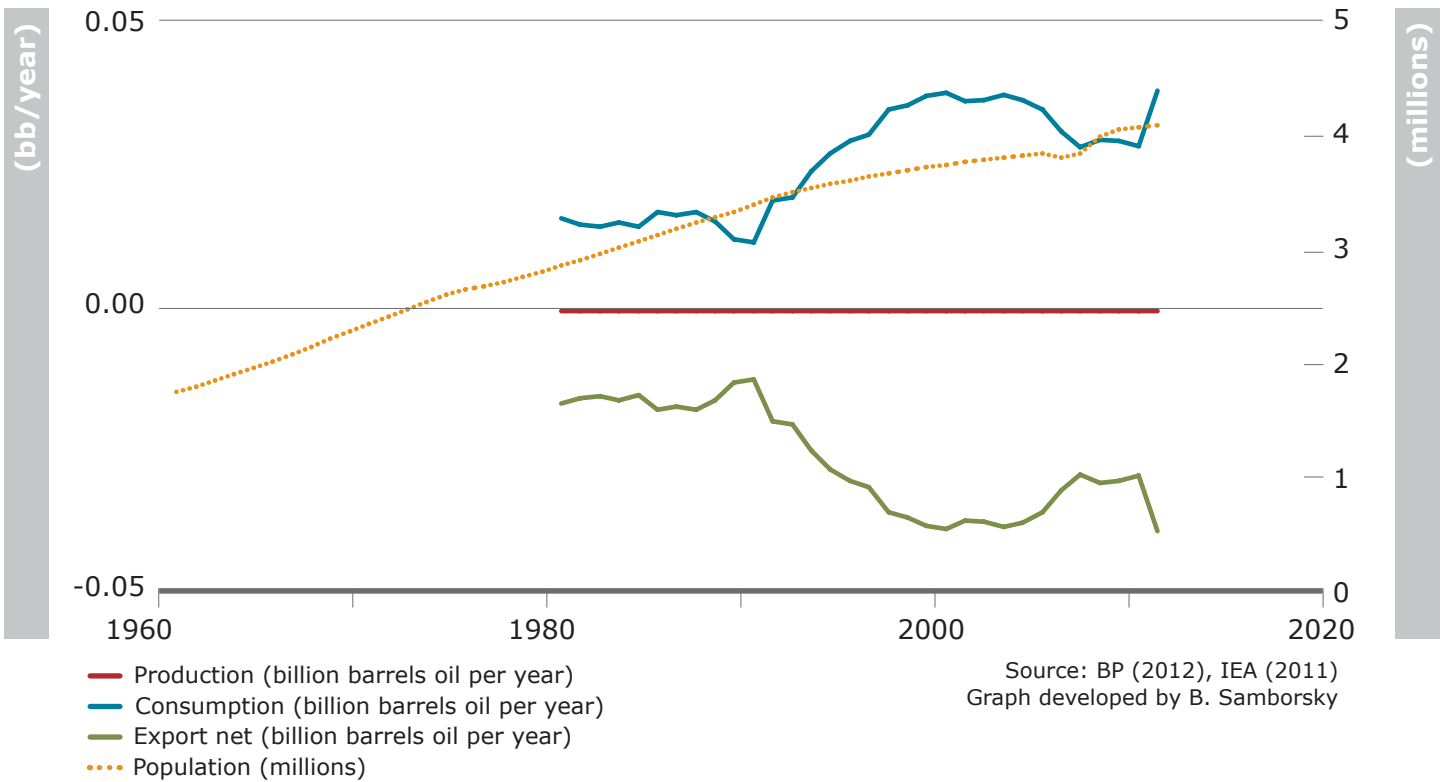


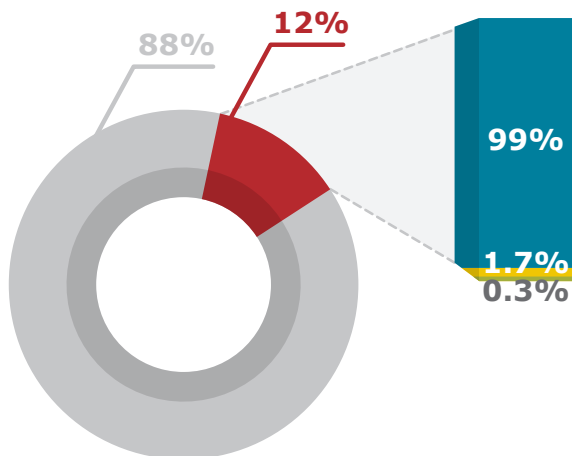


## Renewable Energy Country Profile

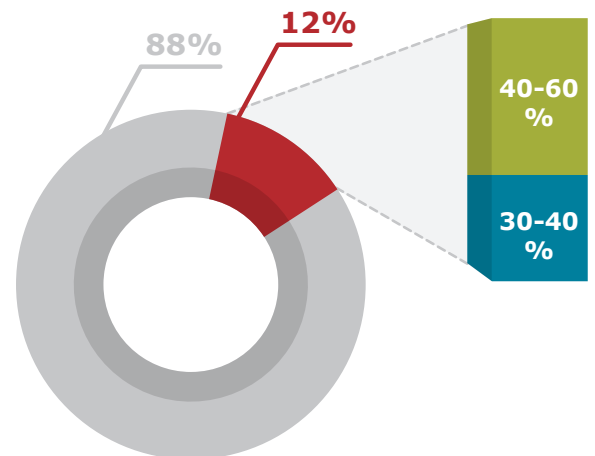
### Energy Supply and Demand – Current Trends



### Current Installed Capacity



### RE Targets - Year 2030



■ Fossil fuel ■ RE ■ Wind ■ PV ■ CSP ■ Hydro

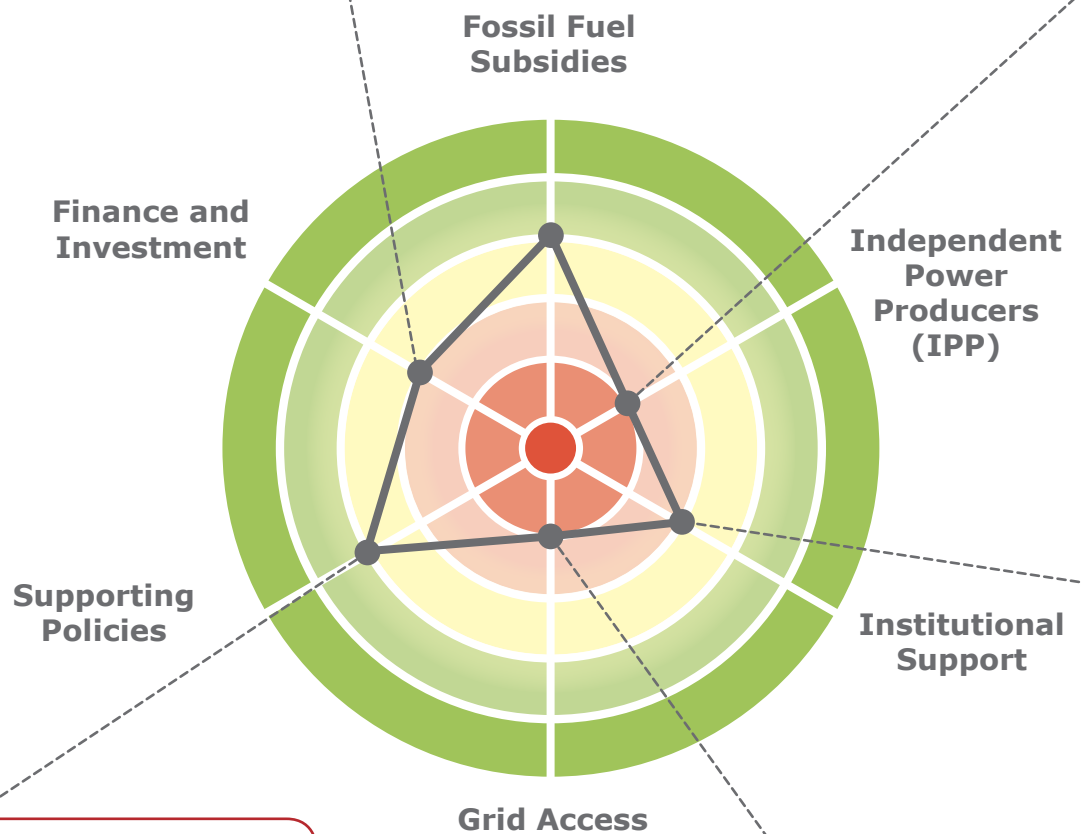
Wind	PV	CSP	Hydro	Total RE	Total all Energy
MW ~0.5	1	0	*282	283.1	2313

Wind	Hydro	Waste to Energy	Total	Target Date
MW 60-100	40	15-25	115-165	2015

\* Total operating capacity is around 150 MW.

## Finance and Investment

- Currently, there is no RE fund established by law for financing RE projects. However, the Central Bank of Lebanon offers low interest loans (0.6%) for RE projects for a period of 14 years (with 4 years of grace period, and 10 years for repayment). There is also a grant from the European Union offering to cover up to 15% of project costs not exceeding USD 150,000 per project. The 15% grant applies to RE projects in nonsubsidized sectors and 5% for projects in subsidized sectors.
- Lebanon does not have yet a policy of providing financial guarantee to private investors to ensure payment under power purchase agreement.
- No customs duties or internal tax benefits provided to RE projects. Lebanon is in the process of compiling a list of RE equipment for future customs duty exemption.



## Supporting Policies

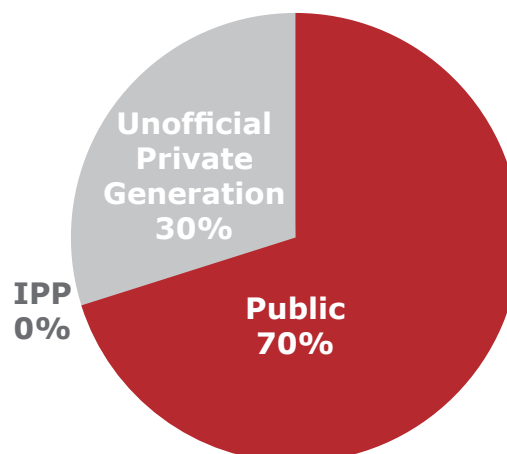
- Public competitive bidding for the development of large-scale RE projects exist.
- Long-term Power Purchase Agreement (Power Rental Agreements).
- No feed-in Tariffs for RE.
- Net-metering policy for small-scale RE projects.

## Grid Access

- No priority access to RE is granted by law.
- Grid code for RE is not developed.
- No detailed grid map for designated renewable energy sites.

## Independent Power Producers (IPP)

- In 2002, Lebanon adopted law No 462 authorizing electricity generation by private companies. To this day, the law remains unenforced as there is no regulator existing to issue licenses for electricity generation.
- Formally, all electricity is supplied by Electricite du Liban (EDL). About 30% of power is supplied by unofficial private standalone generating sets in times of power shortage in the country.
- The legal framework of Lebanon allows private self-generation of RE (auto-producers) with the possibility of feeding surplus electricity to the grid. According to the decision of the Board of EDL, surplus electricity is deducted from bills received by the end of the next month. Extra credit is kept for the following period, and is set to zero by the end of the year.
- No RE auto-producers in practice.



## Institutional Support

- Currently, all activities related to supporting and promoting RE in Lebanon fall under the auspices of the Lebanese Center for Energy Conservation (LCEC). LCEC is established and supported by UNDP, a national organization affiliated with the Lebanese Ministry of Water and Energy.
- Lebanon published a detailed wind atlas in 2011. Based on this atlas, areas for potential wind projects have been identified in the Northern regions (Akkar area), the West mountains, and in the Bekaa region near the Eastern borders with Syria.
- Lebanon has not yet identified or allocated land for large-scale wind projects for private development. Currently, Akkar and Qubayat areas are under consideration for the deployment of possible large-scale solar projects.
- No detailed solar atlas is published yet.
- Lebanon has not identified and allocated land yet for large-scale solar projects for private development.

## Grid Interconnections

Country	Length (km)	Voltage (KV)	Capacity (MW)	Status
Syria	22	400	1000	In operation
Egypt		400	100	In operation

## Projects

Wind	PV
<b>In Operation</b>	
Project: 3 Micro wind sites and 4 hybrid systems (wind and PV) Total capacity: 600-100 kW Developer: Public (UNDP/CEDRO)	Project: 62 Small-scale PV sites (public schools and municipalities) Total capacity: 0.5 MW Developer: Public (UNDP/CEDRO)
<b>Under Construction</b>	
	Project: 9 PV sites (3 kWp) Total capacity: 27 kWp Developer: Public (UNDP/CEDRO)
<b>In Pipeline</b>	
Project: Wind power Total capacity: 60-100 MW Developer: Private Status: Pre-qualification stage	Project: PV street lighting systems (1800 poles) and 30 decentralized off-grid PV systems Developer: Public (Ministry of Water & Energy)

### Projects Percentage of Total Capacity



■ In Operation  
 ■ Under Construction  
 ■ In Pipeline

#### Contributors

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